

September 19, 2016

Mr. Joe Baeten
Wisconsin Department of Natural Resources
Green Bay Service Center
2984 Shawano Avenue
Green Bay, Wisconsin 54313

RE: Irrigation Well Sampling

Central Sands Dairy, LLC

Town of Armenia, Juneau County, Wisconsin

Dear Mr. Baeten:

Pursuant to our approved work plan dated October 16, 2015 and on behalf of Central Sands Dairy, LLC (CSD), RJN Environmental Services, LLC (RJN) sampled water from three of the irrigation wells near CSD: RDO9, RDO12 and RDO13 (see Figure 1). Samples were collected on August 31, 2016.

Based on a screen and casing diameter of 16 inches, and a water column of approximately 80 feet, the screen and casing volume of the well is approximately 840 gallons. Prior to sampling, each pump operated for a minimum of five minutes, purging more than 5,000 gallons of water, or greater than five casing volumes. After purging, a sample was collected from a tap located on the wellhead. During the purging process, the water discharged through the irrigator, as it would in normal irrigation practice.

Samples were collected in laboratory-supplied containers and immediately placed in an iced cooler after collection. After sample collection was completed, the cooler was shipped, along with a completed chain of custody, to the Test America lab in College Park, Illinois. The samples were analyzed for nitrogen, as nitrite plus nitrate, ammonium, total Kjeldahl nitrogen, potassium and phosphorus.

Laboratory reports are included as Attachment A, and results are summarized in Table 1. The sample from all wells exceeded the Wisconsin Enforcement Standard for nitrate (10 mg/L) at 23 mg/L (RDO9), 21 mg/L (RDO12) and 15 (RDO13) mg/L. However, all three results are reduced

4811 Monona Drive • Monona, Wisconsin 53713 Phone: 608.576.3001 from the July 2016 sample results. No other exceedances of the Wisconsin Enforcement Standards or Preventive Action Limits were detected in the samples.

This completes the work scheduled in our approved October 16, 2015 work plan. No additional sampling of irrigation wells is planned.

Sincerely,

RJN ENVIRONMENTAL SERVICES, LLC

Robert Parts

Robert J. Nauta, P.G.

Hydrogeologist

Cc:

Ex. 6 Personal Privacy (PP), Central Sands Dairy, LLC

David A. Crass, Michael, Best & Friedrich Cameron Field, Michael, Best & Friedrich

Email: Adam Scheunemann, WDNR Wastewater Specialist

Jane Landretti, WDNR Attorney

Mary Anne Lowndes, WDNR Runoff Management Section Chief

Laura Chern, WDNR Hydrogeologist

Andrew Craig, WDNR Nonpoint Source Planning Coordinator and NMP Specialist

Gretchen Wheat, WDNR Water Resources Engineer



# TABLE 1 IRRIGATION WELL SAMPLE RESULTS CENTRAL SANDS DAIRY Results in mg/L

					RDO9			
Parameter	PAL	ES	6/17/16	Q	7/26/16	Q	8/31/16	Q
Potassium	NL	NL	3.7		9.9		9.6	
Nitrate + Nitrite	2	10	10		33	В	23	
Total Kjeldahl nitrogen	NL	NL	0.6	В	2.2	В	0.57	В
Ammonia	0.97	9.7	<0.028		6.1	В	0.23	
Phosphorus	NL	NL	0.023	JB	0.099		0.036	J

PAL: Preventive action limit. ES: Enforcement standard. NL: No PAL or ES listed.

Q: Result qualifiers:

B: Compound was present in the sample and the method (lab) blank.

J: Result is less than the reporting limit but greater than the method detection limit and the concentration is an approximate value.

# TABLE 1 IRRIGATION WELL SAMPLE RESULTS CENTRAL SANDS DAIRY Results in mg/L

						RDO	D12		***************************************	
Parameter	PAL	ES	10/16/15	Q	6/17/16	Q	7/26/16	Q	8/31/16	Q
Potassium	NL	NL	3.3		3.1		5.7		5.8	
Nitrate + Nitrite	2	10	9.4		17		22	В	21	
Total Kjeldahl nitrogen	NL	NL	0.67	В	0.63	В	0.69	В	1.9	В
Ammonia	0.97	9.7	0.14	JB	0.097	J	0.19	В	0.50	
Phosphorus	NL	NL	0.062		0.042	JB	0.037	J	0.031	J

PAL: Preventive action limit. ES: Enforcement standard. NL: No PAL or ES listed.

Q: Result qualifiers:

B: Compound was present in the sample and the method (lab) blank.

J: Result is less than the reporting limit but greater than the method detection limit and the concentration is an approximate value.

# TABLE 1 IRRIGATION WELL SAMPLE RESULTS CENTRAL SANDS DAIRY Results in mg/L

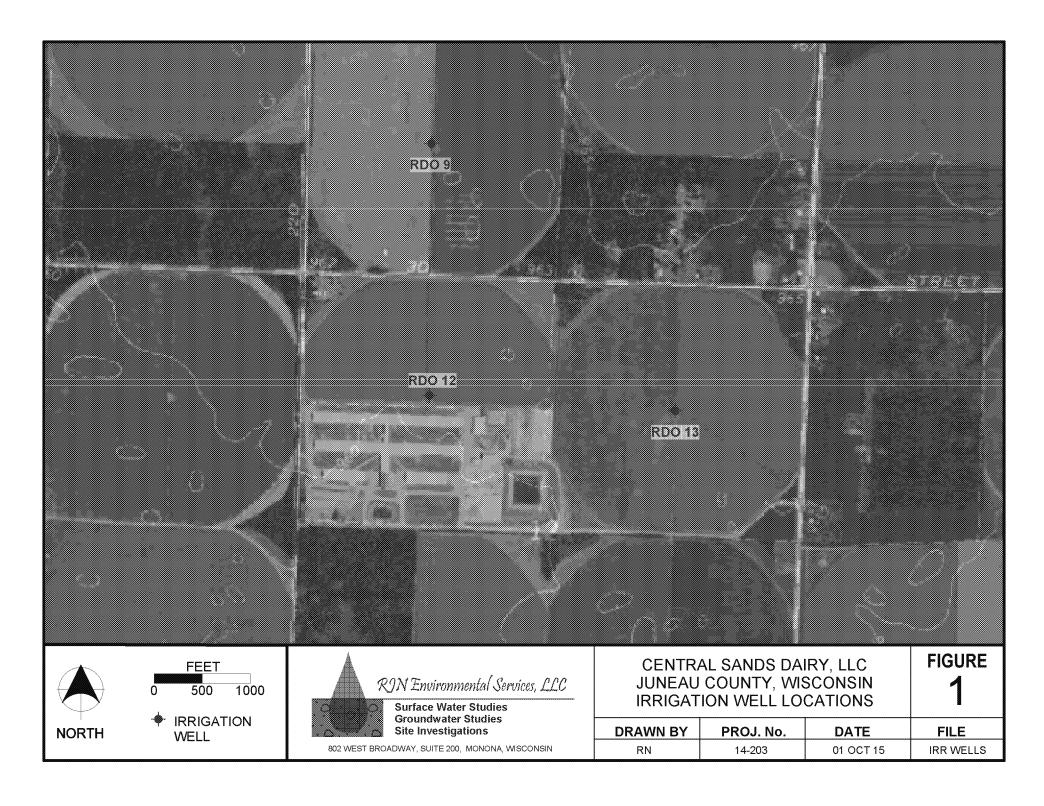
						RDO	D13		***************************************	
Parameter	PAL	ES	10/16/15	Q	6/16/16	Q	7/26/16	Q	8/31/16	Q
Potassium	NL	NL	5.6		6.0		7.2		5.2	
Nitrate + Nitrite	2	10	14		26		30	В	15	
Total Kjeldahl nitrogen	NL	NL	0.85	В	0.77	В	0.71	В	1.2	В
Ammonia	0.97	9.7	0.14	JB	0.091	J	0.23	В	0.35	
Phosphorus	NL	NL	0.056		0.045	JB	0.042	J	0.060	

PAL: Preventive action limit. ES: Enforcement standard. NL: No PAL or ES listed.

Q: Result qualifiers:

B: Compound was present in the sample and the method (lab) blank.

J: Result is less than the reporting limit but greater than the method detection limit and the concentration is an approximate value.





THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago 2417 Bond Street University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-116488-1

Client Project/Site: Central Sands Dairy - 14-203

For:

RJN Environmental Services LLC 4631 County Road A Oregon, Wisconsin 53575

Attn: Robert J Nauta

Sanda Jeduik

Authorized for release by: 9/12/2016 3:24:10 PM

Sandie Fredrick, Project Manager II (920)261-1660

sandie.fredrick@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

## **Table of Contents**

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Method Summary	5
Sample Summary	
Client Sample Results	7
Definitions	8
QC Association	9
QC Sample Results	11
Chronicle	13
Certification Summary	15
Chain of Custody	16
Receipt Checklists	18



#### **Case Narrative**

Client: RJN Environmental Services LLC Project/Site: Central Sands Dairy - 14-203 TestAmerica Job ID: 500-116488-1

Job ID: 500-116488-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-116488-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 9/1/2016 10:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 6.1° C, 6.1° C and 6.7° C.

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### **General Chemistry**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Page 3 of 18

TestAmerica Chicago 9/12/2016

Client: RJN Environmental Services LLC

TestAmerica Job ID: 500-116488-1

Lab Sample ID: 500-116488-1

Lab Sample ID: 500-116488-2

Lab Sample ID: 500-116488-3

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Client	Sample	ID:	RDO	9

Project/Site: Central Sands Dairy - 14-203

Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
9.6		0.50	0.19	mg/L		_	6020	Total
23		2.5	1.1	mg/L	25		353.2	Recoverable Total/NA
0.57	В	0.40	0.15	mg/L	1		4500 NH3 G	Total/NA
0.23		0.20	0.10	mg/L	1		SM 4500 NH3 G	Total/NA
0.036	J	0.050	0.015	mg/L	1		SM 4500 P E	Total/NA
	9.6 23 0.57 0.23	23 0.57 B	9.6 0.50  23 2.5 0.57 B 0.40 0.23 0.20	9.6 0.50 0.19  23 2.5 1.1  0.57 B 0.40 0.15  0.23 0.20 0.10	9.6 0.50 0.19 mg/L  23 2.5 1.1 mg/L  0.57 B 0.40 0.15 mg/L  0.23 0.20 0.10 mg/L	9.6 0.50 0.19 mg/L 1  23 2.5 1.1 mg/L 25  0.57 B 0.40 0.15 mg/L 1  0.23 0.20 0.10 mg/L 1	9.6 0.50 0.19 mg/L 1  23 2.5 1.1 mg/L 25  0.57 B 0.40 0.15 mg/L 1  0.23 0.20 0.10 mg/L 1	9.6 0.50 0.19 mg/L 1 6020  23 2.5 1.1 mg/L 25 353.2  0.57 B 0.40 0.15 mg/L 1 4500 NH3 G  0.23 0.20 0.10 mg/L 1 SM 4500 NH3 G

## Client Sample ID: RDO 12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	5.8		0.50	0.19	mg/L	1		6020	Total
Nitrogen, Nitrate Nitrite	21		2.5	1.1	mg/L	25		353.2	Recoverable Total/NA
Nitrogen, Kjeldahl	1.9	В	0.40	0.15	mg/L	1		4500 NH3 G	Total/NA
Ammonia	0.50		0.20	0.10	mg/L	1		SM 4500 NH3 G	Total/NA
Phosphorus as P	0.031	J	0.050	0.015	mg/L	1		SM 4500 P E	Total/NA

## Client Sample ID: RDO 13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	5.2		0.50	0.19	mg/L	1	_	6020	Total
Nitrogen, Nitrate Nitrite	15		2.5	1.1	mg/L	25		353.2	Recoverable Total/NA
Nitrogen, Kjeldahl	1.2	В	0.40	0.15	mg/L	1		4500 NH3 G	Total/NA
Ammonia	0.35		0.20	0.10	mg/L	1		SM 4500 NH3 G	Total/NA
Phosphorus as P	0.060		0.050	0.015	mg/L	1		SM 4500 P E	Total/NA

This Detection Summary does not include radiochemical test results.

## **Method Summary**

Client: RJN Environmental Services LLC Project/Site: Central Sands Dairy - 14-203

TestAmerica Job ID: 500-116488-1

Method 6020	Method Description Metals (ICP/MS) Nikrogan Nikrota Nikrita	Protocol SW846	TAL CHI
353.2	Nitrogen, Nitrate-Nitrite	MCAVWV	TAL CHI
4500 NH3 G	4500NH3 G - Nitrogen, Total Kjeldahl'	SM	TAL CHI
SM 4500 NH3 G	Ammonia	SM	TAL CHI
SM 4500 P E	Phosphorus	SM	TAL CHI

Page 5 of 18

#### **Protocol References:**

MCAVW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### **Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

## **Sample Summary**

Client: RJN Environmental Services LLC Project/Site: Central Sands Dairy - 14-203

TestAmerica Job ID: 500-116488-1

Lab Sample ID	Client Sample ID	Matrix	Collected Received
500-116488-1	RDO 9	Water	08/31/16 11:50 09/01/16 10:35
500-116488-2	RDO 12	Water	08/31/16 10:15 09/01/16 10:35
500-116488-3	RDO 13	Water	08/31/16 12:10 09/01/16 10:35

Client: RJN Environmental Services LLC Project/Site: Central Sands Dairy - 14-203

Client Sample ID: RDO 9 Lab Sample ID: 500-116488-1

Date Collected: 08/31/16 11:50 Matrix: Water Date Received: 09/01/16 10:35

Method: 6020 - Metals (ICP/MS) - Total Recoverable Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac

Potassium	9.6		0.50	0.19	mg/L		09/01/16 14:48	09/02/16 13:31	1
General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	23		2.5	1.1	mg/L			09/07/16 02:26	25
Nitrogen, Kjeldahl	0.57	В	0.40	0.15	mg/L		09/12/16 08:15	09/12/16 12:01	1
Ammonia	0.23		0.20	0.10	mg/L		09/07/16 18:10	09/07/16 21:13	1
Phosphorus as P	0.036	J	0.050	0.015	mg/L		09/02/16 12:49	09/06/16 20:27	1

Client Sample ID: RDO 12 Lab Sample ID: 500-116488-2

Date Collected: 08/31/16 10:15 Matrix: Water

Date Received: 09/01/16 10:35

 Method: 6020 - Metals (ICP/MS) - Total Recoverable

 Analyte
 Result
 Qualifier
 RL
 MDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Potassium
 5.8
 0.50
 0.19
 mg/L
 09/01/16 14:48
 09/02/16 13:36
 1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	21		2.5	1.1	mg/L			09/07/16 02:27	25
Nitrogen, Kjeldahl	1.9	В	0.40	0.15	mg/L		09/12/16 08:15	09/12/16 12:03	1
Ammonia	0.50		0.20	0.10	mg/L		09/07/16 18:10	09/07/16 21:16	1
Phosphorus as P	0.031	J	0.050	0.015	mg/L		09/06/16 16:20	09/08/16 19:27	1

Client Sample ID: RDO 13 Lab Sample ID: 500-116488-3

Date Collected: 08/31/16 12:10 Date Received: 09/01/16 10:35

 Method: 6020 - Metals (ICP/MS) - Total Recoverable
 Result Qualifier
 RL
 MDL Vnit
 D Prepared
 Analyzed Analyzed
 Dil Fac

 Potassium
 5.2
 0.50
 0.19 mg/L
 09/01/16 14:48
 09/02/16 13:40
 1

General Chemistry Analyte	Result Q	ualifier R	. MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	15	2.	5 1.1	mg/L			09/07/16 02:28	25
Nitrogen, Kjeldahl	1.2 B	0.4	0.15	mg/L		09/12/16 08:15	09/12/16 12:06	1
Ammonia	0.35	0.2	0.10	mg/L		09/07/16 18:10	09/07/16 21:19	1
Phosphorus as P	0.060	0.05	0.015	mg/L		09/06/16 16:20	09/08/16 19:28	1

Matrix: Water

## **Definitions/Glossary**

Client: RJN Environmental Services LLC Project/Site: Central Sands Dairy - 14-203

Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 500-116488-1

#### Qualifiers

#### **General Chemistry**

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
В	Compound was found in the blank and sample.

## Glossary

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
X	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ИL	Minimum Level (Dioxin)
VC	Not Calculated
ΝD	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC .	Quality Control
RER	Relative error ratio
₹L	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
ΓEF	Toxicity Equivalent Factor (Dioxin)

TestAmerica Job ID: 500-116488-1

Client: RJN Environmental Services LLC Project/Site: Central Sands Dairy - 14-203

#### Metals

	Prep	Batch:	350281
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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116488-1	RDO 9	Total Recoverable	Water	3005A	
500-116488-2	RDO 12	Total Recoverable	Water	3005A	
500-116488-3	RDO 13	Total Recoverable	Water	3005A	
MB 500-350281/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-350281/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

#### Analysis Batch: 350480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116488-1	RDO 9	Total Recoverable	Water	6020	350281
500-116488-2	RDO 12	Total Recoverable	Water	6020	350281
500-116488-3	RDO 13	Total Recoverable	Water	6020	350281
MB 500-350281/1-A	Method Blank	Total Recoverable	Water	6020	350281
LCS 500-350281/2-A	Lab Control Sample	Total Recoverable	Water	6020	350281

### General Chemistry

#### Prep Batch: 350422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116488-1	RDO 9	Total/NA	Water	SM 4500 P B	
MB 500-350422/1-A	Method Blank	Total/NA	Water	SM 4500 P B	
LCS 500-350422/2-A	Lab Control Sample	Total/NA	Water	SM 4500 P B	

#### Prep Batch: 350708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116488-2	RDO 12	Total/NA	Water	SM 4500 P B	
500-116488-3	RDO 13	Total/NA	Water	SM 4500 P B	
MB 500-350708/1-A	Method Blank	Total/NA	Water	SM 4500 P B	
LCS 500-350708/2-A	Lab Control Sample	Total/NA	Water	SM 4500 P B	

#### Analysis Batch: 350722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116488-1	RDO 9	Total/NA	Water	SM 4500 P E	350422
MB 500-350422/1-A	Method Blank	Total/NA	Water	SM 4500 P E	350422
LCS 500-350422/2-A	Lab Control Sample	Total/NA	Water	SM 4500 P E	350422

#### Prep Batch: 350844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116488-1	RDO 9	Total/NA	Water	SM 4500 NH3 B	
500-116488-2	RDO 12	Total/NA	Water	SM 4500 NH3 B	
500-116488-3	RDO 13	Total/NA	Water	SM 4500 NH3 B	
MB 500-350844/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 500-350844/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	

### Analysis Batch: 350971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116488-1	RDO 9	Total/NA	Water	SM 4500 NH3 G	350844
500-116488-2	RDO 12	Total/NA	Water	SM 4500 NH3 G	350844
500-116488-3	RDO 13	Total/NA	Water	SM 4500 NH3 G	350844
MB 500-350844/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 G	350844
LCS 500-350844/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 G	350844

Page 9 of 18

TestAmerica Chicago

9/12/2016

## **QC Association Summary**

Client: RJN Environmental Services LLC Project/Site: Central Sands Dairy - 14-203

TestAmerica Job ID: 500-116488-1

## **General Chemistry (Continued)**

#### Analysis Batch: 350987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116488-1	RDO 9	Total/NA	Water	353.2	
500-116488-2	RDO 12	Total/NA	Water	353.2	
500-116488-3	RDO 13	Total/NA	Water	353.2	
MB 500-350987/7	Method Blank	Total/NA	Water	353.2	
LCS 500-350987/8	Lab Control Sample	Total/NA	Water	353.2	

#### Analysis Batch: 351010

La	b Sample ID	Client Sample ID	Prep Type	Matrix	Method F	rep Batch
50	0-116488-2	RDO 12	Total/NA	Water	SM 4500 P E	350708
50	0-116488-3	RDO 13	Total/NA	Water	SM 4500 P E	350708
ME	3 500-350708/1-A	Method Blank	Total/NA	Water	SM 4500 P E	350708
LÖ	S 500-350708/2-A	Lab Control Sample	Total/NA	Water	SM 4500 P E	350708

#### Prep Batch: 351223

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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116488-1	RDO 9	Total/NA	Water	SM4500Norg_C	
500-116488-2	RDO 12	Total/NA	Water	SM4500Norg_C	
500-116488-3	RDO 13	Total/NA	Water	SM4500Norg_C	
MB 500-351223/1-A	Method Blank	Total/NA	Water	SM4500Norg_C	
LCS 500-351223/2-A	Lab Control Sample	Total/NA	Water	SM4500Norg_C	

#### Analysis Batch: 351310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116488-1	RDO 9	Total/NA	Water	4500 NH3 G	351223
500-116488-2	RDO 12	Total/NA	Water	4500 NH3 G	351223
500-116488-3	RDO 13	Total/NA	Water	4500 NH3 G	351223
MB 500-351223/1-A	Method Blank	Total/NA	Water	4500 NH3 G	351223
LCS 500-351223/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 G	351223



Prep Batch: 350281

Prep Batch: 350281

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

**Prep Batch: 351223** 

Prep Type: Total/NA Prep Batch: 351223

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 500-350281/1-A Client Sample ID: Method Blank Prep Type: Total Recoverable

Matrix: Water

Analysis Batch: 350480

MB MB

Result Qualifier RL MDL Unit Analyte Prepared Analyzed Dil Fac 0.50 0.19 mg/L 09/01/16 14:48 09/02/16 12:16 Potassium < 0.19

Lab Sample ID: LCS 500-350281/2-A

Matrix: Water

Analyte

Potassium

Analysis Batch: 350480

Spike

10.0

Added

LCS LCS

10.2

Result Qualifier

Unit mg/L

%Rec 102 80 - 120

%Rec.

Prep Type: Total Recoverable

Limits

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 500-350987/7

Matrix: Water

Analysis Batch: 350987

MB MB

Analyte Nitrogen, Nitrate Nitrite

Result Qualifier <0.045

RL 0.10

MDL Unit 0.045 ma/L Prepared

**Analyzed** 09/07/16 00:45 Dil Fac

Lab Sample ID: LCS 500-350987/8

Matrix: Water

Analysis Batch: 350987

Analyte Nitrogen, Nitrate Nitrite

Spike Added

1.00

LCS LCS

0.977

Result Qualifier

Unit mg/L %Rec 98

%Rec. Limits

Client Sample ID: Method Blank

90 - 110

Client Sample ID: Lab Control Sample

Method: 4500 NH3 G - 4500NH3 G - Nitrogen, Total Kjeldahl'

Lab Sample ID: MB 500-351223/1-A

Matrix: Water

Analysis Batch: 351310

MB MB

Analyte Nitrogen, Kjeldahl

Result Qualifier 0.170 J

RL 0.40

MDL Unit 0.15 mg/L

Prepared

Analyzed 09/12/16 08:15 09/12/16 11:13

Dil Fac

Lab Sample ID: LCS 500-351223/2-A

Matrix: Water

Nitrogen, Kjeldahl

Analyte

Analysis Batch: 351310

Spike Added

2.50

LCS LCS Result Qualifier

2.27

Unit mg/L D %Rec 91

%Rec. Limits

80 - 120

Client Sample ID: Lab Control Sample

#### Method: SM 4500 NH3 G - Ammonia

Lab Sample ID: MB 500-350844/1-A Client Sample ID: Method Blank

Matrix: Water Prep Type: Total/NA Analysis Batch: 350971

Prep Batch: 350844 MB MB

Result Qualifier RL MDL Unit Analyte Prepared Analyzed Dil Fac 0.20 09/07/16 18:10 09/07/16 20:32 Ammonia < 0.10 0.10 mg/L

Lab Sample ID: LCS 500-350844/2-A Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA

Analysis Batch: 350971 Prep Batch: 350844

Spike LCS LCS %Rec. Added Result Qualifier Analyte Unit D %Rec Limits

Ammonia 2.50 2.44 mg/L 98 80 - 120

MB MB

#### Method: SM 4500 P E - Phosphorus

Lab Sample ID: MB 500-350422/1-A Client Sample ID: Method Blank

Matrix: Water Prep Type: Total/NA Analysis Batch: 350722 Prep Batch: 350422

Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac

Phosphorus as P <0.015 0.050 0.015 ma/L 09/02/16 12:49 09/06/16 20:22

Lab Sample ID: LCS 500-350422/2-A Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA Analysis Batch: 350722 Prep Batch: 350422

Spike LCS LCS %Rec. Added Limits Analyte Result Qualifier Unit %Rec

0.500 80 - 120 Phosphorus as P 0.438 mg/L 88

Lab Sample ID: MB 500-350708/1-A Client Sample ID: Method Blank

Matrix: Water Prep Type: Total/NA Analysis Batch: 351010 Prep Batch: 350708

MB MB Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac

Phosphorus as P <0.015 0.050 0.015 mg/L 09/06/16 16:20 09/08/16 19:27

Lab Sample ID: LCS 500-350708/2-A Client Sample ID: Lab Control Sample

Matrix: Water Prep Type: Total/NA Analysis Batch: 351010 Prep Batch: 350708

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits

0.500 Phosphorus as P 0.439 mg/L 88 80 - 120

TestAmerica Job ID: 500-116488-1

Client: RJN Environmental Services LLC Project/Site: Central Sands Dairy - 14-203

Client Sample ID: RDO 9

Lab Sample ID: 500-116488-1

Matrix: Water

Date Collected: 08/31/16 11:50 Date Received: 09/01/16 10:35

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			350281	09/01/16 14:48	JNH	TAL CHI
Total Recoverable	Analysis	6020		1	350480	09/02/16 13:31	FXG	TAL CHI
Total/NA	Analysis	353.2		25	350987	09/07/16 02:26	HMW	TAL CHI
Total/NA	Prep	SM4500Norg_C			351223	09/12/16 08:15	HMW	TAL CHI
Total/NA	Analysis	4500 NH3 G		1	351310	09/12/16 12:01	MTB	TAL CHI
Total/NA	Prep	SM 4500 NH3 B			350844	09/07/16 18:10	JBJ	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	350971		JBJ	TAL CHI
					(Start) (	09/07/16 21:13		
					(End) (	09/07/16 21:16		
Total/NA	Prep	SM 4500 P B			350422	09/02/16 12:49	JBJ	TAL CHI
Total/NA	Analysis	SM 4500 P E		1	350722		JBJ	TAL CHI
					(Start) (	9/06/16 20:27		
					(End) (	09/06/16 20:27		

Lab Sample ID: 500-116488-2 Client Sample ID: RDO 12

Date Collected: 08/31/16 10:15 Matrix: Water

Date Received: 09/01/16 10:35

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			350281	09/01/16 14:48	JNH	TAL CH
Total Recoverable	Analysis	6020		1	350480	09/02/16 13:36	FXG	TAL CH
Total/NA	Analysis	353.2		25	350987	09/07/16 02:27	HMW	TAL CH
Total/NA	Prep	SM4500Norg_C			351223	09/12/16 08:15	HMW	TAL CH
Total/NA	Analysis	4500 NH3 G		1	351310	09/12/16 12:03	MTB	TAL CH
Total/NA	Prep	SM 4500 NH3 B			350844	09/07/16 18:10	JBJ	TAL CH
Total/NA	Analysis	SM 4500 NH3 G		1	350971		JBJ	TAL CH
					(Start) 0	9/07/16 21:16		
					(End) C	9/07/16 21:19		
Total/NA	Prep	SM 4500 P B			350708	09/06/16 16:20	JBJ	TAL CH
Total/NA	Analysis	SM 4500 P E		1	351010		JBJ	TAL CH
					(Start) 0	9/08/16 19:27		
					(End) C	9/08/16 19:28		

Lab Sample ID: 500-116488-3 Client Sample ID: RDO 13

Date Collected: 08/31/16 12:10 Matrix: Water Date Received: 09/01/16 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			350281	09/01/16 14:48	JNH	TAL CHI
Total Recoverable	Analysis	6020		1	350480	09/02/16 13:40	FXG	TAL CHI
Total/NA	Analysis	353.2		25	350987	09/07/16 02:28	HMW	TAL CHI
Total/NA	Prep	SM4500Norg_C			351223	09/12/16 08:15	HMW	TAL CHI
Total/NA	Analysis	4500 NH3 G		1	351310	09/12/16 12:06	MTB	TAL CHI
Total/NA	Prep	SM 4500 NH3 B			350844	09/07/16 18:10	JBJ	TAL CHI

## **Lab Chronicle**

Client: RJN Environmental Services LLC Project/Site: Central Sands Dairy - 14-203

TestAmerica Job ID: 500-116488-1

Lab Sample ID: 500-116488-3

Matrix: Water

Client Sample ID: RDO 13

Date Collected: 08/31/16 12:10 Date Received: 09/01/16 10:35

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 NH3 G			350971		JBJ	TAL CHI
					(Start) 0	9/07/16 21:19		
					(End) 0	9/07/16 21:22		
Total/NA	Prep	SM 4500 P B			350708	09/06/16 16:20	JBJ	TAL CHI
Total/NA	Analysis	SM 4500 P E		1	351010		JBJ	TAL CHI
					(Start) 0	9/08/16 19:28		
					(End) 0	9/08/16 19:28		

#### Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

## **Certification Summary**

Client: RJN Environmental Services LLC Project/Site: Central Sands Dairy - 14-203

TestAmerica Job ID: 500-116488-1

Laboratory: TestAmerica Chicago

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
Wisconsin	State Program	5	999580010	08-31-17

TestAmerica Chicago

9/12/2016

1/4

A R	JN Environmental Services, LLC
	Surface Water Studies Groundwater Studies Site Investigations

Project Name:

Central Sand Dairy

Project Number:

14-203

Report to:

**Robert Nauta** 

invoice to:

Robert Nauta



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Client Name:	RIN Enviro	nmental Ser	vices IIC									500-116488 C
Address:	4811 Mond		vices, EEC				PRF:	SERVA	TION			TURNAROUND TIME:
City/State/Zip:	Monona, V					#N03	***************************************					X Standard
Phone:	608.576.30					-						Rush
Fax:												
Project Manager:	Robert Nau	uta					TKN,					Fax results: Y (N)
Email:	rjnesllc@cl	narter.net				ے	3,1					
Sampler Name:	Robert Nau	ıta 🧷	4			<u>;</u> ë	일 운					Email results: Y N
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SAMPLE ID	)	DATE	TIME	MATRIX		×	3					
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RDO 12		8/31/16	1015	<u> </u>		X	X					
RDO 13		8/31/16	1210	W		<i>X</i>	X					
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					***************************************					<u> </u>		(6.7)(6.1)(6.1) c



Client: RJN Environmental Services LLC

Job Number: 500-116488-1

Login Number: 116488 List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <a href="fig86">66mm (1/4").</a>	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	